

# Stelf-Retracting Device — Class 1 SRL-R

ANSI Z359.14-2021

V8455341060 V845534196

V8455341130





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# INTRODUCTION

This manual contains the Manufacturer's Instructions as required by ANSI Z359.14. It should be used as part of the fall protection training program required by law. All PeakWorks' products are designed and engineered to meet or exceed applicable ANSI standards along with labour ministry requirements.

WARNING: All persons using this equipment must read and understand all the instructions and warnings contained in this manual. Failure to do so may result in serious injury or death. Do not use this or any other fall protection equipment unless you have been properly trained.

### **FALL PROTECTION**

It is the employer's responsibility to provide fall protection and training for any worker deemed to be working at height. In Canada, any worker that is more than 3 meters from the ground or first obstruction must have fall protection. In the U.S., 6 feet.

#### SYSTEM COMPATIBILITY

PeakWorks equipment has been designed and approved for use only with PeakWorks connectors. Any substitution of components may result in compatibility issues. Users should always ensure that the connectors are properly selected and connected so as not to allow a load to be applied to the gate of the connector.

Failure to do so may result in serious injury or death. Do not use this or any other fall protection equipment unless you have been properly trained.

#### **TRAINING**

All workers and their employer must be trained in the correct use, care, and maintenance of this and any other fall protection equipment used. It is the employer's responsibility to provide proper fall protection training for all workers using fall protection equipment. Both the worker and the employer must be aware of the correct and incorrect applications and use of this equipment.

Failure to do so may result in serious injury or death. Do not use this or any other fall protection equipment unless you have been properly trained.

# **RESCUE PLAN**

A rescue plan is an integral and critical part of any fall protection plan and system. It is the responsibility of the employer to have a rescue plan prepared by a competent person. All workers using any fall arrest system must have a rescue plan prior to using the system.



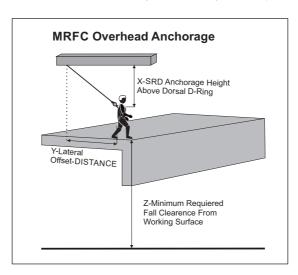
# **INSPECTION**

This equipment and any other fall protection equipment used in conjunction with it should be inspected by the worker every time it is used. This equipment must be inspected annually by a competent person. A competent person is defined by OSHA: "By way of training and/or experience, a competent person is knowledgeable of applicable standards, is capable of identifying workplace hazards relating to the specific operation and has the authority to correct them". Details of how to inspect this equipment is discussed later in the manual.

Type Of Use	Application Examples	Conditions of Use	Inspection Frequency Competent Person
Infrequent to Light	Rescue and confined space, factory maintenance	Good storage conditions, indoor or infrequent outdoor use, room temperatures, clean environments	Annually
Moderate to Heavy	Transportation, residential construction, utilities, warehouse	Fair storage conditions, indoor and extended outdoor use, all temperatures, clean or dusty environments	Semi-annually to annually
Severe to Continuous	Commercial construction, oil and gas, mining	Harsh storage conditions, prolonged or continuous outdoor use, all temperatures, dirty environments	Quarterly to semi-annually

# **FALL CLEARANCE**

Fall Clearance is the distance required to safely arrest the user's fall. It is the distance from the anchorage to the ground. A Fall Clearance Calculation must be done anytime this or any other fall protection equipment is used.





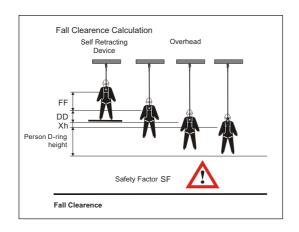
Step 1: Calculate Free Fall (FF)

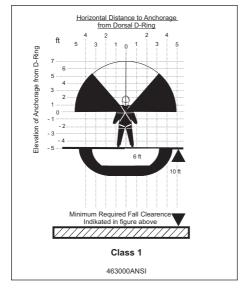
**Step 2:** Determine how much the connecting device deploys (DD)

**Step 3:** Determine the stretch of the harness (Xh; typically 1 ft)

Step 4: Add a safety factor (typically is 3 ft)

**Step 5:** Fall Clearance C = FF + DD + Xh + Person + SF





**Example:** The user works 2 ft away from the SRD and the SRD is anchored 1 ft below the D-ring. Minimum required fall clearance is 13 ft.



# **REPAIR**

Do not attempt to repair or alter this fall protection equipment. Repairs can only be performed by the manufacturer or its authorized agents.

# **SRD OVERVIEW**

All PeakWorks' SRDs have been designed and engineered to meet or exceed all applicable standards and Ministry of Labour requirements. This PeakWorks Self-Retracting Device is intended for use as a Fall Arrest Block or Fall Recovery Block. It is not intended for use with work positioning, man-riding, goods lifting, or moving/lifting materials.

# **SRD CAPACITY**

PeakWorks SRDs are designed for use by a single person with a combined weight (clothing, tools, etc.) of no more than 310 lbs. Make sure all of the components in your system are rated to a capacity appropriate to your application.

#### SRD COMPATIBILITY

All PeakWorks' SRDs come with a carabiner to connect to an anchor and a snap hook to connect to a full-body harness. PeakWorks equipment has been designed and approved for use only with PeakWorks connectors. Any substitution of components may result in compatibility issues. If you have any questions about component compatibility, please contact PeakWorks.

Warning: Do not connect to this SRD with form hooks or any other large opening.

# SRD PERFORMANCE DATA

Model No.	Lanyard Length	Lanyard Material	Max. Arrest Force	Average Arrest Force	Max. Arrest Distance	Average Arrest Distance	Capacity	Classification
V8455341060	60 ft	Galvanized steel cable 3/16"	1,800 lbs	618 lbF	42 in.	28 in.	130-310 lbs	SRL-R Class 1
V45534196	96 ft	Galvanized steel cable 3/16"	1,800 lbs	667 lbF	42 in.	22 in.	130-310 lbs	SRL-R Class 1
V8455341130	130 ft	Galvanized steel cable 3/16"	1,800 lbs	654 lbF	42 in.	23 in.	130-310 lbs	SRL-R Class 1



# **SRL GENERAL OPERATION**

The mechanism in this device is activated by centrifugal force acting on the brakes. This action is produced by the inertia of a fall rapidly spinning the internal drum, which in turn causes the brakes to lock and arrest the fall. Slow reeling of the line will not activate the brake. If the brake locks—due to a fall—the mechanism will reset if the load is removed. In a fall arrest situation, the mechanism will limit the force acting on the body to less than 6 kN. This device is designed to function vertically or at an angle of no more than 30° (see Figure 1).

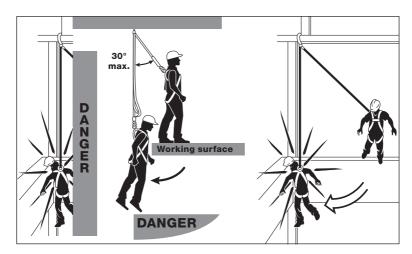


Figure 1

Figure 1

# **ELECTRICAL HAZARD**

Due to the highly conductive nature of the materials used in the construction of this SRD, use extreme caution when working near unprotected high voltage sources. If in doubt, ask!

# **SHARP EDGES, ABRASION & CUTTING**

The wire rope or the webbing of the SRL should never be allowed to come in contact with sharp edges or abrasive surfaces. Such contact could prevent the SRL from arresting a fall.



# PRE-USE INSPECTION

If the Self-Retracting Lifeline is known to have arrested a fall, it must be removed from service immediately and returned for inspection and servicing.

# Before each use, check:

- 1. that the brake operates correctly
- 2. that the SRL is securely anchored level with or above the user (NEVER below)
- 3. that all components to be used in conjunction with this device are compatible and in good condition
- 4. avoid anchoring the device in such a position that could result in a 'pendulum/swing fall' (this may occur if the device is positioned at > 30° from the vertical in relation to the end user).

# Extend the wire rope/webbing fully (wearing suitable protective gloves) and inspect along its length for damage, such as:

- 1. broken or frayed wires/webbing
- 2. soiling and/or corrosion
- 3. kinks and twists in the wire/webbing
- 4. inspect the swage/stitching for damage
- 5. check the connector(s) being used as per the User Instructions supplied with the connector
- 6. check that the Overload/Fall Indicator is not exposed.

Check the device housing for signs of mechanical deformation, cracks, or chemical contamination and/or other defects.

Retract the wire rope/webbing slowly; during retraction, give the wire rope a sharp sudden tug in order to activate the braking mechanism. This check should be carried out along the full length of the rope at approximately 20% increments.

If any of the above criteria fail, then the device must be removed from service. In the event of any doubt, consult a trained and competent person.

Warning: If this SRL or any fall protection device is known to have arrested a fall, it must be removed from service immediately.



# INSTRUCTIONS FOR USE-SAFETY CONSIDERATIONS

- A PeakWorks Self-Retracting Device with recovery mechanism in accordance with ANSI/ ASSP Z359.14-2021 is an automatic fall arrest system, part of a fall protection PPE with integrated fall restraint functions to serve as a Self-Retracting Device and recovery lifting device. In conjunction with a safety harness (ANSI/ASSP Z359.1-2007), this Self-Retracting Device device provides safety for persons carrying out work with a risk of falling (e.g. when moving in containers, vertical shafts, sewer systems). With the recovery mechanism, the lifeline is wound up to lift the casualty in an emergency. This Self-Retracting Device may only be used for the intended purpose.
  - 2. The instructions for use are to be fully read and understood before use. Nonobservance of the instructions for use will put lives at risk ( ). In case of fall, prolonged suspension of a person for more than 20 minutes must be avoided (risk of shock).
  - 3. The recovery mechanism has only been approved for recovery purposes, not for lifting and lowering loads.
- 4. Only safety harnesses in accordance with ANSI/ASSP Z359.1-2007 are permitted for use with the fall arrest block with recovery mechanism (other harnesses are not permitted) (2).
- 5. One Self-Retracting Device can only protect one person at a time, but can be used successively by several persons (3).
- 6. A rescue plan covering any rescue case that might occur during work must exist.
- During the rescue operation, there must always be direct or indirect visual or communicative contact with the person to be rescued.
- 8. For Self-Retracting Devices with a hand chain drive, a suitable attachment point of sufficient carrying capacity must be chosen (e.g., anchorage point); or 22.2 kN carrying capacity at present construction (4). Attachment is made using a suitable connecting element or sling rope, the rope being pulled through the handle of the fall arrest block and closed with a secured connecting element in accordance with ANSI/ASSP Z359.12-2009.
- 9. This Self-Retracting Device should be in a perpendicular position above the head of the person to be rescued in order to prevent swinging (⑤). The suspension of the device must allow for compensating deviations in cable/webbing length. When the device has been attached to the anchorage point, attach the end of the connecting device (carabiner type connector) to the ring attachment point of the safety harness. If the carabiner hooks are not self-locking, they must be screwed tight with a sleeve nut.
- 10. This recovery block with winding handle can only be used as part of a fall arrest system in conjunction with the holders and support brackets of the PeakWorks anchor devices. The instructions for use of the anchor devices and their components must be observed.
- 11. Before every use, check the readability of the product label.
- 12. A visual inspection and functional test of this SRD must be performed before every use (⑤). To do so, attach the fall arrest block to a suitable anchor point: Pull the cable, the ratchets must lock audibly and the Self-Retracting Device must be locking. Firmly hold the cable and allow it to retract into the fall arrest block in a controlled manner. If the cable is released, it may cause injuries and damage by its quick and uncontrolled retraction into the housing. Check the swivel hook for proper functioning (self-closing, lockable). Check the retractable connecting device for proper condition. A recovery block with a damaged connecting element or device (⑥) + ⑦) e.g., cable with a kink or broken/torn strand, must not be used.



















- 13. A fall arrest block must be withdrawn from use if damaged, loaded by fall or if its safe condition is doubtful. It may only be used further if tested and released in writing by an expert from or trained by the manufacturer. Check connector to ensure that the indicator has not been released.
- 14. Fall arrest blocks must not be used for securing persons working above bulk goods or similar substances where people can sink in (3).
- 15. As necessary, but at least every 12 months, Self-Retracting Device with recovery mechanism must be inspected by the manufacturer or by persons trained and authorized by the manufacturer (③). This must be documented in the inspection log book supplied with the product. The effectiveness and durability of the fall arrest block depends on regular inspection.
- 16. Guidance and legislation in the country of use must be followed.
- 17. With the Self-Retracting Device above the user, the clear height below the user must be 6 ft (10).
- 18. The PeakWorks SRD with recovery mechanism can be used in a temperature range from  $-40^{\circ}$  C to  $+50^{\circ}$  C (11).
- 19. The rated load is 130-310 lbs (12).
- 20. Self-Retracting Device with recovery mechanisms must be protected from the effects of welding flames and sparks, fire, acids, lyes, solvents and similar agents.
- 21. No modifications may be made on the device.
- 22. Note: Self-Retracting Device with recovery mechanism may only be used by persons who are appropriately trained or otherwise skilled. Users must be free from health impairments (alcohol, drug, medication or cardiovascular problems).
- 23. The service life of the fall arrest block with recovery mechanism must be determined in the yearly inspection; it is approximately 10 years depending on load stress.
- 24. After every use of the Self-Retracting Device, the device must be inspected by an expert trained by the manufacturer.
- 25. When this SRD is used, it must be ensured that the loaded lifeline does not pass over edges (13).















# SERVICE AND MAINTENANCE

- 1. The lifeline shall only retract under load. On no account may the lifeline be fully pulled out and released because the carabiner hook jolting against the device may cause the retraction spring to break.
- 2. For devices that are constantly exposed to the weather, it is recommended to grease the steel cable with acid-free oils or Vaseline at regular intervals.
- 3. PeakWorks SRDs with recovery mechanism should be stored in dry, dust-, and oil-free conditions in a suitable container.
- 4. Components which have become wet during cleaning or use may only be dried naturally, not near a fire or similar heat sources.

# FUNCTION DESCRIPTION FOR SELF-RETRACTING DEVICE WITH RESCUE LIFTING DEVICE THROUGH CRANK MECHANISM

# **Rescue Application:**

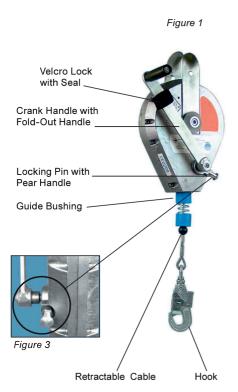






Figure 2

Figure 3

# **Required Operations:**

- 1. Open the sealed Velcro lock (see Figure 1).
- 2. Unfold the crank handle (see Figure 1).
- 3. Pull out the locking pin with pear handle (see Figure 2, Action 1) until the crank handle axis (Action 2) pops out audibly and visibly (Figure 3).
- 4. Rotate the crank handle back and forth until the gear has engaged. The locking pin jumps back into its initial position (Action 3).
- 5. The "rescue function" of the device is established.
- The casualty can now be cranked up and down. Descending is only allowed to a maximum distance of 2 m (6.56 ft).
- 7. Note: Self-Retracting Devices with rescue hoisting crank may only be used with the corresponding holders (holding plates) for PeakWorks fastening facilities EN 795. After successfully using the rescue hoisting device, the Self-Retracting Devices must always be checked by an expert trained by the manufacturer.

Figures 1 and 3 show the PeakWorks Self-Retracting Device with crank position set to the "Self-Retracting Devices" function.



# LABELING OF THE SELF-RETRACTING DEVICE WITH LIFTING DEVICE

# V8455341060 / V845534196

Before each use, test the device for locking and retraction, and inspect according to manufacturers instruction. Max allowed free fail: 5 tt. See user manual for subtainty with horizontal lifeliers. Remove from service if subject to a fail arrest or load indicate is deployed. Only one user to be connected to this device at any time.

WRHING Floor all manufacturers instructions included the fair test of princips, affected to the interactiony of controls and insuspects on ANISASSES 2018.

Class Anchor at or above dorsal D-ring 1

Product #: Lifeline length: Lifeline material: Rated capacity: Max. arrest distance:

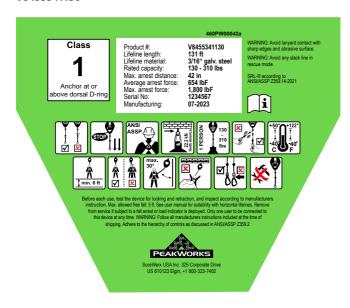
Average arrest force:
Max. arrest force:
Max. arrest force:
Serial No:
Manufacturing:

V8455341060 60 ft 3/16" galv. steel 130 - 310 lbs 42 in 618 lbF 1,800 lbF 1234567 07-2023



# LABELING OF THE SELF-RETRACTING DEVICE WITH RECOVERY MECHANISM

#### V8455341130





# **INSPECTION LOG**

	Inspection Date	Results	Corrective Action	Maintenance Performed	Inspection Conducted By
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					

12